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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,371	12/24/2001	Kun-Yung K. Chang	R1-P102	8036
38456	7590	06/02/2005	EXAMINER	
DENIRO/RAMBUS			WONG, LINDA	
685 MARKET STREET, SUITE 540			ART UNIT	
SAN FRANCISCO, CA 94105			PAPER NUMBER	
			2634	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/026,371	Applicant(s) CHANG ET AL.	
	Examiner Linda Wong	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-41 is/are allowed.
- 6) ☒ Claim(s) 1,3,7,9,14,15,18 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 2,4-6,8,10-13,16,17,19,25 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because
  - a. Written labels should be provided to clarify components of the invention shown in the diagrams.
    - i. Fig. 2, numerical labels 215, 201 should be accompanied by written labels.
    - ii. Fig. 5, numerical labels 203, 205, and 211 should be accompanied with written labels.
    - iii. Fig. 6, numerical labels 215 and 601 should be accompanied by written labels.
    - iv. Fig. 8, numerical labels 809 and 839 should be accompanied by written labels.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1,3,7,9,14-15,18,20-24** are rejected under 35 U.S.C. 102(e) as being taught by Lee et al. (US Publication No.: 20020085656).

- a. **Claim 1**, Lee et al discloses a plurality of samples of the input signal captures using a first clock signal, which inherently samples the signal within a cycle (Fig. 5, labels 401, 414, 415, 416), selecting or grouping samples of the input data signal based on the data rate (paragraph [0007], lines 1-6 and Fig. 5, labels 414, 415, 416, 401, and 403) and a phase control circuit or phase controller, receiving two samples and used to determine the phase error or whether the transition of the input signal leads/lags the first clock signal and causes he phase shifter to shift the phase of the clocks so resampling can occur. (Fig. 5, label 407 and page 1, paragraph [0007], lines 6-14, Fig. 7, labels 413, page 2, paragraph [0017], lines 19-21)
- b. **Claim 3**, Lee et al discloses a phase comparator indicating an early status if the first and second sampled signal are equal. (page 1, paragraph 0007, lines 6-8)
- c. **Claim 7**, Lee et al discloses a first clock signal or multiple clock signals with different phases. (Fig. 1, label 414,415,416)

- d. **Claim 9**, Lee et al disclose M sampling circuits (Fig. 5, labels 414, 415, 416 and 403) each containing a respective clock signal to sample the input signals during each cycle of the first clock. (Fig. 5, labels 414, 415, 416)
- e. **Claim 14** inherits the limitations of claim 1, but claim 1 does not recite the selection of data transition and states. Within the sampling means, it is possible to select any type of samples of the inputted data, wherein such samples can be state or transitions.
- f. **Claim 15**, Lee et al discloses a phase control circuit that generates a phase control signal (Fig. 4, label 410, 411, 412) causing the phase shifter (Fig. 4, label 413) to shift the clocks based on the lead/lag information from the phase control signal (Fig. 4, labels 411 and 412).
- g. **Claim 18** inherits all the limitations of claim 1.
- h. **Claim 20**, Lee et al discloses adjusting the phase of the clock signals (Fig. 1, labels 414, 415, 416, and 413) based on the comparisons of the samples. (Fig. 1, labels 408, 409, 411, and 412)
- i. **Claims 21 and 22**, Lee et al disclose selection of samples and a compare logic that outputs the change in phase. (page 2, paragraph [0017], lines 5-9) Since the selection of the samples can be states or transitions, and the functionality of the compare logic or a phase comparator is to determine if the samples match, it would be obvious to compare whether a first data state and first data transition match or a first data state and a second data state match.

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- j. **Claim 23**, Lee et al discloses sampling at multiple clocks with multiple phases.  
(Fig. 1, labels 414, 415, 416, page 2, paragraph [0017], lines 19-21)
- k. **Claim 24**, Lee et al discloses a clock or a first clock signal used for sampling the input data. (Fig. 1, labels 414, 415, 416)

***Allowable Subject Matter***


- 3. **Claims 2,4-6,8,10-13,16-17,19,25-26** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 4. **Claims 27-41** are allowed over prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Wong whose telephone number is 571-272-6044. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LW

  
**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**